2007-08 Idaho 4th Grade Direct Mathematics Assessment

437

MR

STUDENTS DO NO

ROUND 1

T:___ R:___ T:___ R:___

the entire test to you before you begin.
calculator on this assessment.

Understanding of situation. Effective problem-solving strategies.

1. In the spring, Lewis and Clark saw 749 buffalo, 15 mountain sheep, 1,305 prairie dogs, 14 grizzly bears, and 426 deer.

a. How many more prairie dogs were there than buffalo? *Show how you found your answer.*

1,305 prarie dogs
- 749 buffalo
556

check
556
+ 749
1305

There are 556 more prarie dogs than buffalo.

b. How many animals did Lewis and Clark see in all? *Show how you found your answer.*

749 buffalo
15 mountainsheep
1,305 prarie dogs
14 grizzly bears
+ 426 deer
2509

There are 2,509 animals in all.

c. In the summer, Lewis and Clark saw three times more grizzly bears than in the spring. How many bears did they see? *Show how you found your answer.*

14 grizzly bears
x 3
42 grizzly bears

check
42
- 3
14

There is 42 more grizzly bears in the summer than in the spring.

d. Lewis and Clark saw a total of 15 sheep on three different mountains. Each mountain had the same amount of sheep. How many sheep did Lewis and Clark see on each mountain? *Show how you found your answer.*

Adequate processes.

15
÷3
5

check
5 X 3 = 15

Lewis and Clark saw 5 mountainsheep on each mountain.

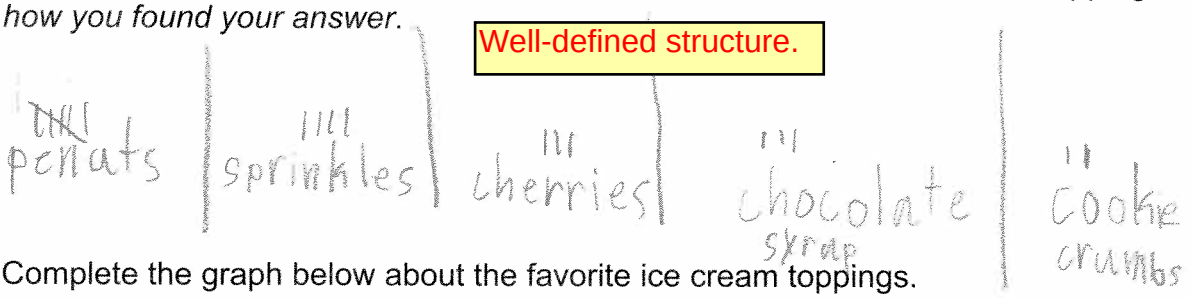
Read problems 2, 3, 4, and 5 on this and the next two pages.
Select three problems to answer. Answer ALL of the parts of the three problems you select to answer.
Cross out the one problem that you do not choose to answer.

2. The 4th grade students at Hillcrest School chose their favorite ice cream topping. The results are below.

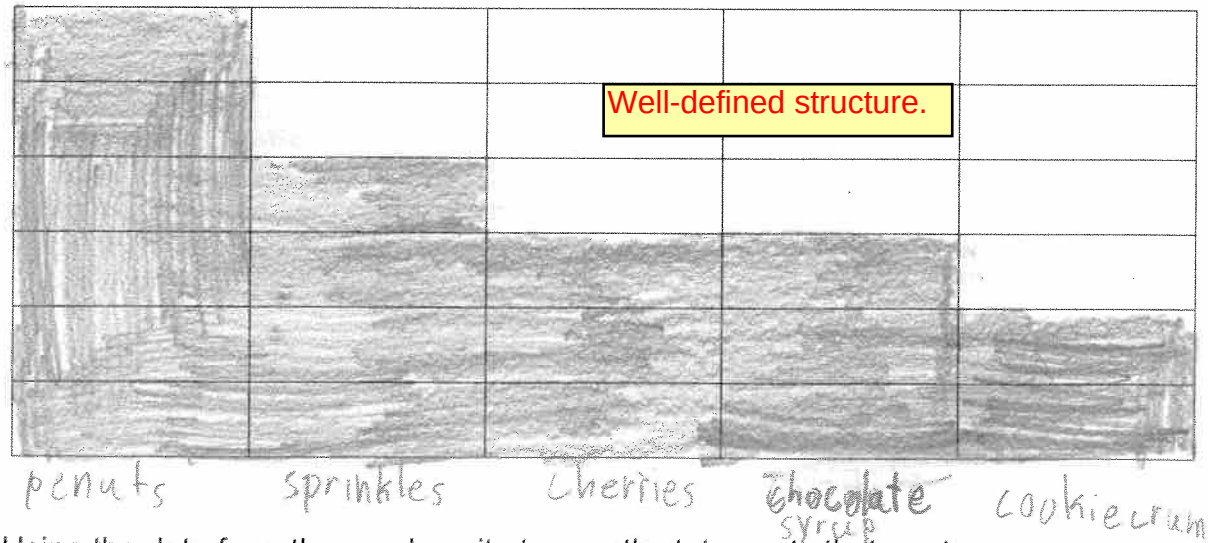
Student	Favorite Topping	Student	Favorite Topping
Tommy.....	peanuts	Debbie.....	chocolate syrup
Julie.....	sprinkles	Trevor.....	peanuts
Nick.....	cherries	Zack.....	cookie crumbs
David.....	peanuts	Johnny.....	peanuts
Joseph.....	peanuts	Diane.....	cherries
Kim.....	sprinkles	Becky.....	sprinkles
Nancy.....	chocolate syrup	Tim.....	peanuts
Tiffany.....	chocolate syrup	Cathy.....	sprinkles
Jimmy.....	cherries	Chris.....	cookie crumbs

a. Organize the information to show how many students chose each kind of topping. *Show how you found your answer.*

Well-defined structure.



b. Complete the graph below about the favorite ice cream toppings.



Well-defined structure.

c. Using the data from the graph, write two math statements that are true.

More students like penuts than cookie crumbs, sprinkles, cherries, and chocolate syrup.

Cookie crumbs are the least favorite.

Effective math vocabulary.

3. Jim collects toy cars. He sorts them into boxes. He put one in the first box, four in the second box, and seven in the third box.

   a. Complete the chart below showing the number of cars Jim will put in each box.

	Box 1	Box 2	Box 3	Box 4	Box 5
Number of Cars	1	4	7	10	13

   b. Continuing this pattern, how many will Jim put in the seventh box? *Show how you found your answer.*

1+3=4 +3 =7+3=10+3=13+3=16+3=19

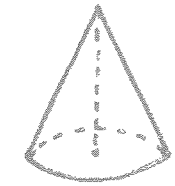
In the seventh box there will be 19 cars.

   c. How many total cars will there be in all seven boxes? *Show how you found your answer.*

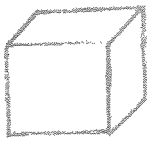
   d. Explain the rule for this pattern. *Show how you found your answer.*

4. a. Write the name of each shape.

Effective math vocabulary.



cone



cube

triangle

rectangular prism

   b. Which two shapes are more alike? *Explain your thinking.*

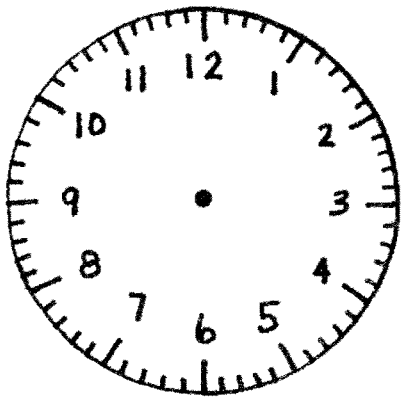
The cube and rectangular prism are most alike because the both have six corners.

   c. Choose a shape above. *Describe its attributes.*

A tri angle has three sides, three corners, and is flat.

Adequate understanding of the situation.

5. Maria spent each Monday night after school doing the following activities: 20 minutes doing math, 30 minutes practicing gymnastics, 15 minutes studying spelling words, 5 minutes practicing math facts, and 1 hour of free play.



a. What is the total time she spends on these activities? *Show how you found your answer.*

Occasional computational errors.

20 min math
30 min gymnastics
15 min spelling words
5 min math facts
+60 min free play
130

Maria spent 1 hr. 30 min. on her activities.

b. If she started these activities at 4:15 P.M., what time would she finish? *Show how you found your answer.*

Proficient thinking skills and process is apparent.

4:15 pm
20 min. math
30 min. gymnastics
15 min. spelling words
5 min. math facts
+60 min. free play
5:45

Maria will finish at 5:45 p.m.

c. On one Monday night, Maria started her activities at 4:15 P.M. Her mother told her to be finished by 6:00 P.M. Which activities could she choose so that she finished by 6:00 P.M.? *Show how you found your answer.*

Maria could do freeplay, and gymnastics.

Structure of responses is well-defined and adaptable.

4:15
+60 min. free play
30 min gymnastics.
5:45